Animal Bites and Other Potential Rabies Exposures in West Virginia, 2010

Background. Animal bites and other potential rabies exposures to humans are reportable events in West Virginia (per §64-7-3.4.b.1) and must be reported to local health departments within 24 hours of identification. The administration of rabies post-exposure prophylaxis (PEP) is also reportable to local health departments within 24 hours of identification. Reporting of these events ensures local health department involvement to help mitigate human exposures to potentially rabid animals. Local health departments investigate exposures and report them to the Division of Infectious Disease Epidemiology via the West Virginia Electronic Disease Surveillance System (WVEDSS). Additionally, the West Virginia Office of Laboratory Services (OLS) conducts rabies testing on certain animals involved in human exposures. The following summary includes potential human rabies exposures reported via WVEDSS and animal rabies test results from human exposures reported from OLS during the time period of 1/1/2010 through 12/31/2010.

WVEDSS Summary. In 2010, 2,301 animal bites and other potential rabies exposures to West Virginia residents were reported in 52 of 55 counties. The largest number of reported exposures occurred during the month of May (n=281). The age distribution of exposure victims was broad (**Table 1**). Males accounted for more exposures involving bats and raccoons compared with females. The majority of all exposures were bite injuries inflicted from owned (pet) dogs. Hospitalization as a result of exposure was documented in only 50 (2.3%) cases. One bite-related death was documented. Rabies PEP was reported as being initiated in 188 (8.9%) exposures. Among dog and cat exposures, 4.3% and 13.8% resulted in initiation of rabies PEP in the exposure victim respectively. In comparison, 70.6% of bat exposures and 54.8% of raccoon exposures resulted in initiation of rabies PEP.

Table 1. Summary of animal bites and other potential rabies exposures to humans reported in 2010 (N=2,301)^a.

Animal Causing Exposure (n)	Median Age of Victim in Years (Range)	Female to Male Ratio of Victims	Bite Injury (%)	Hospitalized (%)	Died (%)	Rabies PEP Initiated (%)	Exposing Animal Reported as "Owned" (%)
Dog	27	1.0	1,600	33	1	65	1,492
(n=1,666)	(0–98)		(96.0)	(2.1)	(0.1%)	(4.3)	(91.6)
Cat	42	2.2	461	17	0	68	287
(n=526)	(0-99)		(87.6)	(3.4)	(0.0)	(13.8)	(55.5)
Bat	42	0.8	12	0	0	24	0
(n=36)	(0-82)		(33.3)	(0.0)	(0.0)	(70.6)	(0.0)
Raccoon	36	0.3	25	0	0	17	2 ^b
(n=31)	(8–86)		(80.7)	(0.0)	(0.0)	(54.8)	(6.5)
Rodent	12	1.8	20	0	0	4	3
(n=22)	(2–86)		(90.9)	(0.0)	(0.0)	(18.2)	(15.0)
Livestock	50	1.5	4	0	0	5	10
(n=10)	(19–71)		(40.0)	(0.0)	(0.0)	(50.0)	(100.0)
Other ^c	26	2.3	9	0	0	5	4
(n=10)	(2–49)		(90.0)	(0.0)	(0.0)	(50.0)	(40.0)
Total	32	1.2	2,131	50	1	188	1,798
(N=2,301)	(0–99)		(92.6)	(2.3)	(0.0)	(8.9)	(79.9)

^aAll percentages are row percentages based on available (non-missing) data for each variable.

^bNote: It is illegal (and dangerous) to keep any wild animal as a pet.

^cOther animals included: ferret (2), fox(4), opossum (1), and rabbit (3)

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OLS Summary. In 2010, 409 animals were tested for rabies as a result of human exposure in 52 of 55 counties in West Virginia; of those tested, 20 (4.9%) were found to be positive for rabies in 11 counties (Berkeley, Brooke, Greenbrier, Hardy, Jefferson, Mercer, Monroe, Morgan, Ohio, and Preston). Cats accounted for the largest number of specimen submissions (n=169), followed by dogs (n=126), raccoons (n=44) and bats (n=33) (**Figure 1**). Animals testing positive for rabies included 7 cats (4.1%), 5 raccoons (11.4%), 3 livestock (20.0%), 3 foxes (50.0%), 1 skunk (50.0%) and 1 dog (0.8%).

Animals Tested for Rabies due to Reported Human Exposure: West Virginia Office of Laboratory Services, 2010

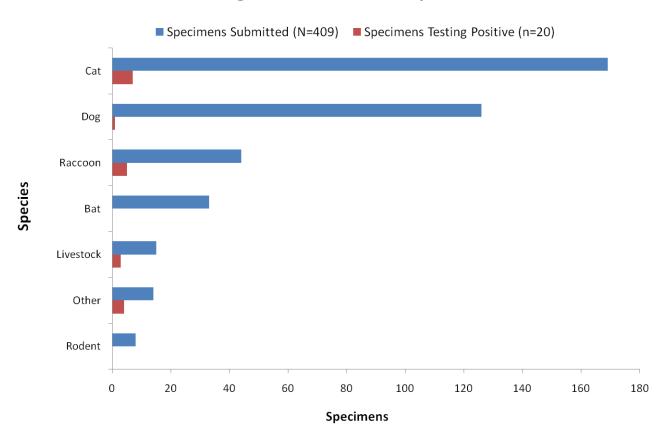


Figure 1. Animal specimens submitted to the West Virginia Office of Laboratory Services in 2010 for rabies testing as a result of human exposure.